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106: 200705c Corrosion-resistant ceramics. Yamamoto, Hiroichi; Oguro, Takashi; Tsunoda, Hideo; Motomura, Hikari (Mitsubishi Heavy Industries, Ltd.) Jpn. Kokai Tokkyo Koho JP 62 52,192 [87 52,192] (Cl. C04B41/87), 06 Mar 1987, Appl. 85/189,784, 30 Aug 1985; 4 pp. Aluminosilicate- or zircon-based oxide films are formed on the surface of Si-contg. nonoxide ceramics TO improve their corrosion resistance. Thus, a  $\text{Si}_3\text{N}_4$  ceramic was covered with  $\text{Al}_2\text{O}_3$  powder (diam.  $0.6 \mu$ ), and heated at  $1200^\circ$  for 5 h to form a surface layer consisting of  $3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ . When its corrosion resistance was tested with synthetic ash at  $800^\circ$ , the corrosion loss was 0.75, vs. 2.7  $\text{mg}/\text{mm}^2$  for an untreated sample.